

Castlemaine Naturalist

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Monthly newsletter of the
Castlemaine Field Naturalists Club Inc.



Eltham Copper butterfly on Hakea

***Bursaria spinosa*, *Notoncus* ants and a small copper butterfly**

Peter Turner

Elaine Bayes and Karl Just, local ecologists, are leading a project to determine the distribution within Kalimna Park of the Eltham Copper Butterfly and were our guest speakers at the club's November meeting. Elaine and Karl have worked with local naturalists and members of the "ECB Fan Club" over recent years with the aim of protecting this threatened species from the impacts of DELWP's planned burns in the Park, and this year the work is supported by a Wettenhall Foundation grant to continue and extend the program and seek further members of the ECB monitoring group, with the assistance of Connecting Country. In addition, the Dja Dja Warrung Corporation that is now managing Kalimna Park is supporting more extensive monitoring of flora and fauna in the areas where ECB can be found.

The Eltham Copper Butterfly (*Paralucia pyrodiscus lucida*) is a small (~25mm width) copper butterfly only found in Victoria. It is one of the Lycaenidae family of butterflies which have highly specialised ecological requirements. It is a close relative of the Dull Copper *Paralucia pyrodiscus*. ECBs have a symbiotic association with Sweet Bursaria (*Bursaria spinosa*) and a species of *Notoncus* ants and are only found where both Bursaria and ants coexist – which is only a fraction of the Bursaria shrubs. The species was listed as Threatened under the Victorian Fauna and Flora Guarantee Act (1988) in 1991 [1], and as Endangered in 2016, under the EPBC Act [2].

Entomologist David Crosby recognised the Eltham Copper Butterfly in the Eltham area as a distinct sub-species in 1951, from its sharply defined copper coloured patch on the upper wings. It was considered to have been

extinct since the 1950's until rediscovered at Eltham in 1986 [3]. Crosby visited Castlemaine in 1988 and discovered a population of ECB in the woodland section of the Castlemaine Botanical Gardens, on the hillside west of Barkers Creek. He contacted Castlemaine Field Naturalists Club about the infestation of Cape Broom in that part of the CBG, which resulted in many working sessions and, as George Broadway reported, truckloads of dug-up broom plants. In 2002 a population of ECBs was found in Kalimna, and in 2007 another was located in the Greater Bendigo National Park on Big Hill. Now there are three areas of dry open woodlands in Victoria where ECBs are known – Eltham/Greensborough (where the Nillumbik Council and Parks Vic have established six reserves [4]), Kiata/Salisbury in the west, and Castlemaine/Bendigo.

The female ECB lays eggs on the base of the stem of Sweet Bursaria that have a colony of the *Notoncus* ants living amongst the roots of the plant. When the eggs hatch the ants protect the caterpillars by shepherding them up the plant to eat on the leaves at night; the ants feed on the sweet secretions from the body of the caterpillars. While the ECBs are critically dependent on the ants, for the ants the sugars they gain from tending the caterpillars are just one of their food sources. The butterflies emerge from the pupal stage from October, and can be seen flying during sunny days when the temperature is between 20 and 30 degrees through the summer months. So finding Bursaria plants that have ant colonies, and whether there are associated butterflies, is a challenge for those monitoring these remarkable insects.

It is clear that planned burns in Kalimna Park could, if not carefully sited and controlled, destroy some of these endangered butterflies both directly and also by killing the *Bursaria spinosa* they depend upon. So mapping the areas within the park where ECBs have been observed is critically important.

Useful references:

[1]

https://www.environment.vic.gov.au/_data/assets/pdf_file/0012/32511/Eltham_Copper_Butterfly_Paralucia_pyrodiscus-lucida.pdf

[2]

<http://www.environment.gov.au/biodiversity/threatened/species/pubs/66766-conservation-advice-05052016.pdf>

[3]

https://www.swifft.net.au/cb_pages/sp_eltham_copper_butterfly.php

[4]

<https://www.nillumbik.vic.gov.au/Environment/Natural-environment/Native-flora-and-fauna/Eltham-Copper-Butterfly>

Eltham Copper Butterfly monitoring

Ecologists Elaine Bayes and Karl Just are leading a program to identify areas within Kalimna Park where the threatened Eltham Copper Butterfly (ECB) and the associated *Notoncus* ants may be found, on or near Sweet Bursaria (*Bursaria spinosa*) plants. As Elaine described during her talk at our November meeting, DELWP plans for controlled burns in Kalimna Park have the potential to destroy ECB colonies, so it is essential to identify areas that should not be burnt.

You can assist in this effort – and with luck see these very small special butterflies – by attending one of the ECB monitoring sessions over the next few months. Elaine has provided the following information:

Next Monitoring dates and locations are:

12-4 pm Sunday 15 December 2019. Location: Parking spot just north of where golf course intersects with Kalimna Tourist Road, Castlemaine.

12-4 pm Saturday 28 December 2019. Location: Corner of Vanstan Road and Lawson Parade, behind Castlemaine Secondary College, Castlemaine.

You don't need to attend all these events to become a monitor and there is no booking required, just turn up. Once you understand the monitoring method and feel confident you can identify an Eltham Copper Butterfly, you're welcome to do your own monitoring and report sightings.

Contact Elaine on 0431 959 085 or by email: elaine@rakali.com.au.

Birds of Sutton Grange

Nigel Harland

Cuckoos still around and calling well, two summer migrants have arrived. Keeping the bird baths full in this time of drought.

Superb Fairy-wren	Red-browed Finch	White-browed Scrubwren
Australian Magpie	Australian Raven	Laughing Kookaburra
Yellow-tufted Honeyeater	Sulphur-crested Cockatoo	Long-billed Corella
Crimson Rosella	Striated Pardalote	Grey Shrike-thrush
Black-faced Cuckoo-shrike	Welcome Swallow	New Holland Honeyeater
Red Wattlebird	Common Bronzewing	House Sparrow
Galah	Pallid Cuckoo	Eastern Rosella
Wood Duck	White-naped Honeyeater	White-winged Triller
Fan-tailed Cuckoo	Horsefield's Bronze-Cuckoo	

Photo Observations

Claire Morgan – Shingle-backs

A couple of shingle-back lizards at Barkers Creek. Haven't seen this pale colour before. Looked to be in some mating ritual.



Owlet Nightjar, Forest Creek

Peter and Rosemary discovered this little guy enjoying the morning sun from a mammal box in late November. I found it in the same pose two days later! - Noel Young

Some Bird notes for this Spring

Noel Young

You would be forgiven for thinking that winter has forgotten to go away this year. Maybe that's a good thing considering the conditions that have prevailed in NSW and Qld. There are some indications that this abnormal situation is causing migration further south than usual, for instance the recent influx of Crimson Chats to the Moolort Plains. I wonder how the Swift Parrots are fairing; as far as I know none turned up here this winter, so they presumably went up the NSW coast. By now they should be nesting in Tasmania. The Scarlet Honeyeater failed to turn up this year, and I have not come across a Painted Honeyeater, (though I did hear one call in Daylesford in October). Our CBG Powerful Owls failed to appear again this spring. Two Chicks were raised in the gardens in the spring of 2017, and none in 2018. Two adults were there early this year but disappeared by winter. We did seem to have the usual influx of Cuckoos, White-winged Trillers, Orioles and so on. It will be interesting to see what the Bird Count turns up, though like last year it has been hit by inclement weather.

One of my favourite bird locations is the Railway Dam, which I have visited a few times from September on. It scored a high count on the SEANA excursion there. Here is a list from my last two visits on November 15 and 18:

Common species – Magpie, Little Raven, Australian Raven, Rufous Whistler, Grey Shrike-thrush, Olive-backed Oriole, Willie Wagtail, Fuscous Honeyeater, Red Wattlebird, Crimson Rosella, Yellow Robin, Black-faced Cuckoo-shrike, Welcome Swallow, Dusky Woodswallow, Superb Fairy-wrens.

Others – White-necked Heron, Eastern Rosella, Kookaburra, White-throated Tree-creeper, Blackbird, White-browed Scrubwren, Spotted Pardalote, Grey Fantail, Yellow-tufted Honeyeater. Earlier in spring other species included White-winged Triller, Galah, Pallid Cuckoo, Fan-tailed Cuckoo, Horsefield's and Shining Bronze-Cuckoos, Golden Whistler, Mistletoe-bird, E Shrike-tit, White-faced Heron.

Muckleford Golf Course November 5 and 23:

Magpie, Choughs, Common Bronzewing, Peaceful Dove, Olive-backed Oriole, White-plumed Honeyeater, Fuscous Honeyeater, Superb Fairy-wrens, Grey Shrike-thrush, Black-faced Cuckoo-shrike, White-bellied Cuckoo-shrike, Red Wattlebird, Brown Treecreeper, White-browed Woodswallow, Noisy Miner, Scrubwren, Willie Wagtail, Masked Lapwing, Mudlark, Rufous Whistler, Eastern Rosella, Musk Lorikeet, Yellow Robin, Sulphur-crested Cockatoo, Little Eagle, White-browed Babblers. (The Babblers were tending a nest)



Railway Dam: White-necked Heron (unusual) Yellow Robin (usual)



Muckleford GC: Peaceful Doves

Babbler adding a stick to the nest

December Observations (1941)

George Broadway

In December 1941 of "Wildlife" magazine there were no replies to readers specimens or observations. There was instead a detailed index to Volume 3 . There was however an article which I believe may be of interest to our readers.

It is titled "NEW KOALA SANCTUARY".

'Following the policy of spreading a chain of koala communities carefully protected within sanctuary areas throughout Victoria to ensure the prosperity of the species, the Fisheries and Game Dept. of Victoria has provided stock for a splendid sanctuary area on Mount Alexander, at Castlemaine. Forty adults including 14 females carrying young in their pouches, have been liberated in the area which contains almost 90 per cent of Manna Gums, in a well forested stand. The sanctuary contains 50 acres, in the centre of a 3000 acre forest, and it should considerably enhance the tourist attractions of the Castlemaine district. The noted mineral springs of the district are taken in on the drive from Castlemaine to the sanctuary'.

For those readers who are too young or too new to the district it should be noted that the sanctuary mentioned is not the recently defunct sanctuary which was established near the present day picnic and camping area, but was on the other side of the road. The area is now traversed by the Dog Rocks walking track. I remember seeing far more koalas in this park than I ever did in the new sanctuary.

Also the writer of the article must have taken a very circuitous route to the sanctuary if the mineral springs were passed en route.

Removing Needle Grasses from the Botanic Gardens

This season's part of the project supported by Mount Alexander Shire Council to control the spread of needle grasses on Council land in Castlemaine has already achieved a lot. The contractor funded through the Council grant is working with Margaret Panter to control needle grasses by digging out or spraying, mainly along roadsides. The infestation in the Botanical Gardens, west of Barkers Creek, is being tackled by volunteers under Margaret's leadership to remove the grasses by hand. Gardens staff have been very helpful digging out some plants, delaying mowing and then mowing promptly when all identifiable needle grasses have been removed. This year a day-release team from Loddon Prison also did a session. We've now got out all the needle grasses we could find, and the areas have been mowed. But after rain, new plants or the new heads of existing plants often appear, so the cycle of removal will start again quite soon. And seeds can remain viable in the soil for up to 12 years.

The dates and times for working bees are emailed to CFNC members by Geraldine Harris. We do need more volunteers to assist – even half an hour of weeding can help. Margaret Panter marks grasses for removal and helps us learn how to identify them and tell the difference between needle grasses and native spear and wallaby grasses - useful knowledge in case these weeds appear in your garden. Please consider joining some of these sessions.

We put the weeds in empty potting mix bags and tape them shut before sending them to the tip, and we are getting short of these bags, so if anyone has bags they don't need we would be glad to accept them. (Other thick bags made from high density polyethylene are OK, but not most animal feed bags which are made from a different plastic, to which packaging tape doesn't stick well.) If you're not coming to a working bee, please ring Margaret on 5470 5072 between 7am and 7pm to arrange for collection.

From your Committee:

At the last committee meeting for 2019 on Thursday 21st we noted that some parts of the CFNC website, <https://castlemainefnc.wordpress.com/> are out of date, and will be reviewed and updated over the summer. Suggestions from members for improvements are welcome.

We noted the success of SEANA 2019 held here in Castlemaine – those attending commented very favourably on the range and interest of the excursions, the evening talks and meals, and the venue. The event resulted in a surplus of over \$2000 for CFNC due to the much larger attendance than we had expected when developing the budget.

The club's program of talks and excursions for 2020 is being developed – if you have heard about an interesting talk by an expert naturalist please let us know.

The 2020 Annual General Meeting will be held on Friday 13th March. Nominations for new members of the committee will be very welcome – please consider joining your committee.

SEANA Autumn 2020 in Western Victoria

The Hamilton FNC will host the Autumn 2020 SEANA gathering from Friday 17th – Sunday 19th April. They have prepared an enticing program of full and half day excursions, to explore the region's volcanic history, restored wetlands, southern Grampians, and birding hotspots. A highlight (for additional cost) will be a guided tour of Budj Bim Cultural lands, recently announced World Heritage site of the Gunditjmara people. Copies of the First Circular can be obtained from the Hamilton FNC Secretary, Rod Bird (rod.bird@bigpond.com) or from Castlemaine FNC (castlemainefnc@hotmail.com).

Christmas breakup December 13

Our next meeting will be the traditional member's night, when members have the opportunity to entertain with photos, show and tell, a story or poem, followed by a supper. (Please bring a plate)

The Committee wishes all members a healthy and happy Christmas and look forward to seeing you all in the new year.

Castlemaine Field Naturalists

Coming events

Fri Dec 13 meeting: Member's night and season break-up:
Make a contribution to the entertainment; bring a plate for supper.

Fri Feb 14 meeting: First meeting for 2020

Fri Mar 13 meeting: **Annual General Meeting**, Election of office bearers

Disclaimer: The opinions expressed in this newsletter are those of the contributors and not necessarily those of the club

VISITORS ARE WELCOME AT CLUB ACTIVITIES

General meetings - (second Friday of each month, except January) are held in the Uniting Church (UCA) Hall (enter from Lyttleton St.) at 7.30 pm.

Field Trips - (Saturday following the general meeting) leave from the car park opposite Castle Motel, Duke Street at 1.30pm sharp unless stated otherwise. BYO morning and/or afternoon tea. Outdoor excursions are likely to be cancelled in extreme weather conditions. There are NO excursions on total fire ban days.

Business meetings - third Thursday of each month, except December, at George Broadways; 24a Greenhill Ave., at 6.00 pm. Members are invited to attend.

Club website (Web master: Ron Wescott) - <http://castlemainefnc.wordpress.com/>

Subscriptions for 2019

Ordinary membership: Single \$35, Family \$50

Pensioner or student: Single \$25, Family \$30

Subscription includes postage of the monthly newsletter, Castlemaine Naturalist

2019 Committee

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